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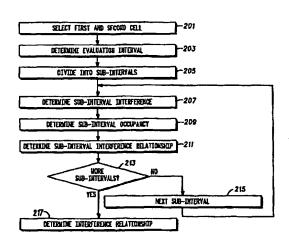
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(54) Title: METHOD AND APPARATUS FOR DETERMINING AN INTERFERENCE RELATIONSHIP BETWEEN CELLS OF A CELLULAR COMMUNICATION SYSTEM



(57) Abstract: The invention relates to a system for determining an interference relationship between cells of a cellular communication system comprising at least a first cell and a second cell. A method comprises the step of dividing (205) an evaluation interval into a plurality of sub-intervals. For each sub interval, the method proceeds to determine (209) a sub-interval simultaneous occupancy related to the correlation between communication in the first and second cell. The sub-interval simultaneous occupancy is determined from an occupancy of each of the first cell and the second cell. A subinterval potential interference is then determined (209) in response to the interference characteristics in each sub-interval. An interference relationship is subsequently determined from the sub-interval potential interferences and the sub-interval simultaneous occupancies. The interference relationship provides a measure of the impact of interference between the first and second cell suitable for frequency planning.

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 H04Q7/36

C. DOCUMENTS CONSIDERED TO BE RELEVANT

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) $IPC \ 7 \ H04Q \ H04L$

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal

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Υ	column 3, line 64 - column 4, li *Idem*	ne 41	12-18
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Y	US 6 393 277 B1 (SAHIN YILDIRIM 21 May 2002 (2002-05-21) abstract; claim 1; figure 2 column 6, line 18 - line 61 	ET AL)	1–19
X Fur	ther documents are listed in the continuation of box C.	Patent family members are listed	in annex.
"A" docum consi "E" earlier filling "L" docum which citatic "O" docum other "P" docum	ategories of cited documents: ment defining the general state of the art which is not dered to be of particular relevance document but published on or after the international date ent which may throw doubts on priority claim(s) or n is cited to establish the publication date of another on or other special reason (as specified) ment referring to an oral disclosure, use, exhibition or means ent published prior to the international filing date but than the priority date claimed	"T" later document published after the integration or priority date and not in conflict with cited to understand the principle or the invention "X" document of particular relevance; the cannot be considered novel or cannot involve an inventive step when the de"Y" document of particular relevance; the cannot be considered to involve an indocument is combined with one or ments, such combination being obvicin the art. "&" document member of the same patent	the application but early underlying the claimed invention to be considered to coument is taken alone claimed invention eventive step when the ore other such docupus to a person skilled
	e actual completion of the international search	Date of mailing of the international sea	arch report
	26 January 2005	04/02/2005	
Name and	mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31–70) 340–2040, Tx. 31 651 epo nl, Fax: (+31–70) 340–3016	Authorized officer Danielidis, S	



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